

REMARKS

In response to the outstanding Office Action, Applicant has amended claim 1, canceled claims 19-28, and added new claims 29-32. Claims 1-18 and 29-32 remain pending in this application.

The Rejections

Claims 1-3, 7, 8, 12, 13, 19-21, 25, 26, and 28 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,681,116 to Johnson (hereafter "Johnson"). Claims 10 and 11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson. Claims 4-6, 14, 16-18, and 22-24 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of U.S. Patent No. 6,323,980 to Bloom (hereafter "Bloom"). Claims 9 and 27 were rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of U.S. Patent No. 6,587,450 to Pasanen (hereafter "Pasanen"). Claim 15 was rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Bloom and further in view of U.S. Patent No. 6,466,771 to Wood, Jr. (hereafter "Wood").

The Cited Art

Johnson describes a communication system including a first communication node connected to a second communication node by a wire line for integrating parallel layers of wireless communications for exchange with users. The first communication node includes a free-space laser device, a first wireless system, and a first wire line device, and a second communication node including a second wireless system and a second wire line device.

Bloom describes a free-space laser communication system. The system includes a large number of picocells. Each picocell includes a base station providing conventional communication with at least one user but typically several or many users. Each base station includes at least two laser transceivers, where each transceiver has a pointing mechanism for automatic alignment. These transceivers provide communication with other base stations, relay information between other base stations or transmit information to conventional communication systems.

Pasanen describes a wireless local area network including at least one server device, one or several peripheral devices, and a circuit for transferring information between the server device and the peripheral devices. Transmission of information in the wireless local area network is at least partly arranged to be conducted by a plurality of predetermined link agents, wherein the circuit for transferring information includes a circuit for generating a predetermined link agent circuit for transmitting the generated link agent, a circuit for receiving the link agent, a circuit for processing the received link agent, and a circuit for carrying out one or several operations defined for the predetermined link agent generated.

Wood describes a wireless communications system including a first transponder adapted to be coupled to one of a plurality of selectable antennas, having a look-up table including locations holding data representing antennas, and having pointers pointing to selected ones of the locations, the pointers defining an order in which antennas will be used to attempt communication; and a second transponder configured to communicate with the first transponder, wherein the first transponder uses an antenna defined by data in one location of the table for communication with the second transponder, and, if successful communication with the second transponder is not established, the first transponder uses an antenna defined by data in another location of the table selected in accordance with the order defined by the pointers.

The Cited References Distinguished

The primary reference used by the Examiner in rejecting the claims was Johnson, which teaches a laser communication network in conjunction with a standard network. The key feature of Johnson's system is a qualitative analysis of the data to be transmitted. This is because Johnson's system is designed to send important or critical information in the most reliable fashion, even if it is slow. Simply put, they don't want to risk losing any critical data, regardless of the performance of the system. In stark contrast, Applicant's claim 1 claims a quantitative analysis of the data to be transmitted, which can be used to send the information in the fastest way possible.

The fact that Johnson is making a qualitative analysis of the importance of the data in deciding which communication linkage to use is clearly supported in his patent specification. For example, Johnson teaches:

Operationally, user traffic is configured to utilize the most appropriate one of free-space laser device 308 and wireless system 306 *based on cost and criticality of the traffic*. For example *mission critical traffic* from main frame billing system 324 and *mission critical* customer service center 336 is carried by wireless system 306, while *normal operation traffic* to LAN 316 and media content traffic to media content servers 318 is carried by *free-space laser device* 308. Some examples of *mission critical traffic* include but are not limited to, inbound calls to customer centers and reservation centers, operationally critical data service connections, and billing applications. Some examples of *normal operation traffic* include but are not limited to, media content traffic such as high definition video, Internet traffic, Gigabit LAN traffic, and VoIP traffic. Johnson, col. 6, lines 1-45, *emphasis added*.

Applicant, however, in claim 1 is claiming the use of a quantitative analysis to determine the best communication channel. In particular, the Applicant is monitoring the data rate of the transmission. See, for example:

As indicated in operation 702, a tally of data communication to various IP addresses is maintained to *track a current data transfer rate* thereto. As an option, such tally may only be maintained for “point-to-point” IP addresses that are resident in databases 300 within the housing 400. ...

With continuing reference to Figure 7, it is determined in decision 704 as to *whether the current data transfer rate to a particular destination has exceeded a predetermined quantity*. If not, the data is communicated by way of the *hard-line network* via the Ethernet interface card 206. Note operation 706.

If, on the other hand, it is determined in decision 704 that the *current data transfer rate to a particular destination has exceeded a predetermined quantity*, it is then determined whether *laser communication* is already allocated to a destination, or whether laser communication is even possible due to obstacles and such. Note decision 708. If laser communication is already allocated to a destination or simply not possible for some reason, the data is communicated by the *hard-line network* via the Ethernet interface card 206 in operation 706. Applicant’s Specification, page 8, lines 11 -29, *emphasis added*.

The remaining cited references do not cure the deficiencies of Johnson with respect to the use of a quantitative analysis of the data transfer rate for directing data traffic in a laser/network system. Dependent claims 2-18 are patentable for at least the same reasons as set forth with respect to claim 1. Additionally, Applicant traverses the additional rejections made to these

dependent claims. Applicant respectfully requests that the rejections of claims 1-18 be withdrawn.

Applicant further traverses the rejections of dependent claims 10 and 11, which were based upon the Examiner's unsupported assertion that the shape of the housing is a matter of mere design choice. In fact, the shape of the housing is important in order to improve or optimize the line-of-sight free space laser communication between communicating nodes. Should the Examiner reintroduce this rejection, Applicant will require a reference to support the Examiner's assertions.

New claims 29-32 have been added to further define aspects of various embodiments. They are patentable over the cited art for the above cited and/or other reasons.

The Additional References

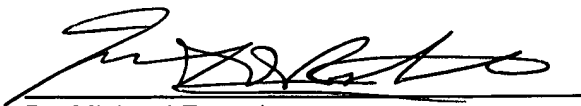
The Examiner made U.S. Patent No. 5,953,507 to Cheung et al. and U.S. Patent No. 6,701,092 to Doucet et al. of record, but not relied upon for the claim rejections. Applicant believes that these applications are merely cumulative, and that the pending claims are patentable over these references alone, in combination with each other, and in combination with the cited art.

Conclusion

As explained above, the currently pending claims are clearly distinguishable over the art of record. Applicant respectfully requests an early Notice of Allowance.

Respectfully submitted,

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Dr. Michael Rostoker
Registration No. 31,193

Correspondence Address:

Dr. Michael Rostoker
Patent Attorney
P.O. Box 1639
Los Altos, CA 94023
(831) 338-1776